



## Latex Bands

**Grades:** 9-12

**Science Standard:** Content Standard B: Physical Science

### Materials:

2 3 oz plastic cups	plastic spoon
5 mL liquid latex	10 mL graduated cylinder
5 mL water	paper towels
5 mL vinegar	plastic pipet
goggles	plastic Petri dish bottom
cap from a 2-liter bottle	

### Safety:

Liquid latex is packaged in ammonia which acts as a preservative. Neutralization with vinegar (acetic acid) will cause the latex to solidify into rubber very quickly. Latex may be purchased from Flinn Scientific (800-452-1261) with catalog # L0004 for 500 mL. The ammonia and vinegar have irritating fumes. Latex is not considered hazardous. People with a latex allergy should NOT do this laboratory.

### Procedure:

1. Goggles must be worn. To calibrate the cup, pour in 5 mL of water. (Use the graduated cylinder to measure the water.) Mark the side of the cup at the 5 mL level. Pour out the water. Pour in liquid latex to the mark on the plastic cup and add 5 mL of water to the same plastic cup. Mix. **OR** If you are using the 3 oz plastic cups, the bottom of the cup has an indented line which is about a volume of 5 mL. So add latex to the indented line on the cup. Add 5 mL of water to the same cup and mix.
2. Add 5 mL of vinegar to another small cup.
3. Place the cap of the 2-liter bottle in the center of the Petri dish. Pour in the latex and water solution around the cap. Keep your finger on the cap to prevent it from moving.
4. Using the plastic pipet, add squirts of vinegar to the latex mixture in a circular pattern around the bottle cap. Make sure you have a circle of vinegar in the latex.
5. While still holding the bottle cap in place, use your index finger to gently push the latex from the edge of the dish toward the cap in the center. Keep pushing the latex until the edge of the dish is clear of the white solution.
6. Pick up the cap with the latex ring. Pull out the cap and place the latex band in a basin of water to rinse it and squeeze it a few times under water to pop any bubbles.
7. Do not let it splatter all over!
8. Take out the latex rubber band and squeeze out any water with paper towels.
9. As your latex band cures for several days, it turns a dark color and is more elastic.